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Throughout the year the open-hearth furnaces operate irregularly. In the winter, recovery of steel is 5.57 tons per square meter of hearth. Consumption of equivalent fuel per ton of steel is 280 kilograms. In the summer, on the other hand, steel recovery is 7 tons per square meter of hearth and fuel consumption decreases to 220 kilograms per ton of steel.

At the beginning of winter, the mazut storage tanks are empty. Mazut, delivered in tank cars during the winter, is preheated by live steam, giving it a 10-percent moisture content. As a result, the furnaces must operate on wet mazut. Every year, steelworkers raise this problem, but neither the plant directors nor "Glavuralmet" have yet given a satisfactory answer, indicating that these directors and the administration pay no heed to the leading workers on proposals for improving production. Only two measures are necessary for the solution of this problem: accumulation of petroleum reserves before winter and provision of dry steam to the furnaces in winter.

Another factor not taken into consideration by the directors is that in rebuilding the open-hearth furnaces and increasing their tonnage, it is also necessary to increase the smelting area. The roofs of the furnaces should have been raised and the regenerator capacity increased. Since this was not done, the furnaces have a very short run between repairs and require at least one excess cold repair. The open-hearths of the Verkh-Issetskiy Plant, with their low-capacity regenerators, with stand 120 melts, while a similar furnace, such as at the Lys'va Plant, withstands 300 melts. Consideration of all these factors would provide steelworkers with the possibility of sharply decreasing the length of the melt, increasing steel recovery at least by 20 percent, and decreasing fuel consumption 15-20 percent.

The rolling and sheet shops of the plant also have great untapped reserves. Metal, ingots, sheet bar, and sheet are heated in furnaces where Siberian coal is burned in semigas combustion chambers. The furnaces do not have cast-iron or steel recuperators for preheating the air with waste gases, although this is a common practice in other plants: as a result, these furnaces have an annual overconsumption of 7,000-8,000 tons of fuel, which has to be imported into the region.

With the introduction of new technology, the plant should have reconsidered the old standards for rolling metal. The plant is fully capable of rolling sheet metal according to the minimum allowances permitted by the regulations. Plant engineers for some time have held that a decrease of 3 percent in the weight of the sheet bar and the subsequent increase of 3 percent in sheet output would make it possible for the plant to increase output considerably and increase savings. The increased output, resulting from decreasing the trimmed edge of the sheet only one percent, would still give the plant a saving of 1½ million rubles, while of itself, fine-gauge sheet for use in transformers and motors would be more economical. This proposal has not, however, been upheld by the plant directors, headed by Radkevich. In fact, the management has expressed an entirely different view, that of rolling heavy-gauge sheet, within the OST limits, since the plant gets paid per ton of metal and not by the quantity of sheets. The plant is thus hampered in its further progress by the self-complacency of its directors.(4)

In Molotov Oblast, the "650" mill at the Chusovoy Metallurgical Plant completed 2 weeks ahead of schedule an order for sheet iron for the Kuybyshev power project.(5)

R. Averkiyev, design engineer, together with Engineer Svistunov, developed and put into operation in the open-hearth shop of the Izhevsk Metallurgical Plant, Udmurt ASSR, a combined brick checkerwork for the regenerators of the steel furnaces. This innovation provides several million rubles annually in savings, decreases substantially the length of the melt, and cuts fuel consumption 40-45 percent.(6)

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The Beloretsk Steel Wire Plant, Bashkir ASSR, has received orders for a large consignment of steel cable and wire rope for the Kuybyshev GES project. Part of this order will be produced from metal saved. The first lot of steel cable has already been sent to the project.(7)

The rail shop of the Kuznetsk Metallurgical Combine imeni Stalin has received and filled an order to produce a consignment of girders for the Stalingrad GES project. Other orders for the Volga power projects are beginning to arrive at the combine -- primarily orders for metal from plants producing equipment for the projects. The Kovrov Excavator Plant, Vladimir Oblast, recently asked the combine to speed up its shipments of metal which will be used in the production of machines for the Volga projects. This request has been complied with.(8) The combine recently obtained an order for a large consignment of sheet for the Kuybyshev project and completed the order one day ahead of schedule. Open-hearth shops No 1 and 2 are accumulating a fund of metal smelted above plan for the Volga and Kakhovka power stations and the Main Turkmen Canal.(9)

The combine completed ahead of schedule the 9-month plan for the entire metallurgical cycle. The highest coefficient for capacity utilization of blast furnaces achieved in September was 0.82, as compared with the progressive norm of 0.84.(10)

In the Kazakh SSR, the Metallurgical Plant in Temir-Tau completed the third-quarter plan many days ahead of schedule.(11) The plant has exceeded the planned capacity of its equipment. It has also exceeded the production level specified in the Five-Year Plan and has almost completed the 1950 plan.(12)

On 20 October, the Aktyubinsk Ferroalloy Plant completed the postwar Five-Year Plan. Average monthly smelting of ferrochrome has more than doubled in comparison with the first year of the Five-Year Plan (1946). High-grade types of metal have been put into production and their output has increased 20 percent over 1949.(13)

The plant's first smelting shop has adopted the new progressive norms which were worked out at the conference of metallurgists of the Urals and the East. Smelters of furnace No 5 are smelting high-quality semimanufactures, working in close cooperation with associates of the Scientific Research Institute of Ferroalloys.(14)

Leading steelworkers at the Uzbek Metallurgical Plant are completing melts in 6 hours 40 minutes, as compared with the norm of 8 hours.(15)

SOURCES

1. Moscow, Izvestiya, 29 Oct 50
2. Leningradskaya Pravda, 28 Oct 50
3. Leningradskaya Pravda, 6 Oct 50
4. Moscow, Pravda, 11 Oct 50
5. Moscow, Komsomol'skaya Pravda, 6 Oct 50
6. Moscow, Trud, 6 Oct 50
7. Moscow, Trud, 22 Oct 50
8. Moscow, Trud, 30 Sep 50

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9. Moscow, Izvestiya, 13 Oct 50
10. Moscow, Pravda, 10 Oct 50
11. Moscow, Pravda, 4 Oct 50
12. Alma-Ata, Kazakhstanskaya Pravda, 10 Oct 50
13. Moscow, Komsomol'skaya Pravda, 21 Oct 50
14. Alma-Ata, Kazakhstanskaya Pravda, 5 Oct 50
15. Tashkent, Pravda Vostoka, 14 Oct 50

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